

uniform and compact; the annual rings just visible; the larger transverse septa fine, close, and distinct, producing minute flowers, and presenting that dapple on the finished surface so much admired, and which is sometimes enhanced by a curling in the grain. It is softer than beechwood, not liable to warp, easy to work, susceptible of a fine polish, and durable—that is, if kept dry, and by some bitter impregnation protected from worms, to which it is rather subject. It is (supposing the worms to be effectually prevented) too flexible for timbers which have to bear any cross strain; but, being in toughness superior to the oak, it might be adopted for ties and similar purposes; it might also with advantage be introduced in joinery; in floor-boarding its appearance is very pleasing. The purposes to which it is generally applied, however, and for which it is valuable, are furniture and cabinet-work; the beautiful variegation of its knots admirably adapting it for inlaying. For articles of superior description, that which is whitest and much figured is highly esteemed; for many purposes of the turner, domestic utensils indeed especially, it is preferred to beech—musical instruments are sometimes made from it. The wood of the most mature trees is not the best, as it is not so fresh or fine in colour; its strength and toughness being also impaired, brittle, and thus deceptive.

62. **POPULAR.**—There are five species of this tree common in this country, namely the *Lombardy*, the *black*, and the *common white poplar*, the *abele*, and the *aspens*. The first three are the most esteemed, but there is not very much difference in the whole. The poplar flourishes in low, fertile, and marshy grounds, the margins of streams, &c.; it is well calculated for suburban vistas, as also, from its compactness of form and foliage, for concealing unsightly offices or subordinate buildings; owing to the litter, however, which its leaves make in autumn, it is not very suitable for principal avenues, lawns, or the more ornamental grounds, where trimness is essential. The wood is well adapted for wainscoting and other joinery as well as for stairs, flooring, &c. (where there is not much wear—in bed-rooms for example), on account of its not being much liable to shrink, its very superior appearance, and small degree of inflammability; but it is not suitable for principal carpentry: it is durable when kept dry, but, with the exception of the *aspens*, which while soft is tough throughout, it rots when exposed to the weather: but to treat them separately:

63. The Lombardy variety is of the most rapid growth; in thirty years it attains upwards of sixty feet; but by its eightieth it is dead or in the progress of decay; to the last it has a slender and graceful cypress-like form, possessing a beauty almost peculiarly its own, that of bending to the breeze, and maintaining through its tall and spire-like figure a graceful and pleasing undulation, which has been compared to the wave of a feather. Its precise appearance is considered to harmonize well with buildings, for which too the fact of smoke not being detrimental to its growth must serve further to recommend it. It has been stated that its shade, unlike that of many other trees, is very beneficial to vegetation; and the circumstance of that which is immediately under its droppings being soon eaten by cattle gives fair evidence of the correctness of that assertion. It is recommended to use both this and the *Abele* for avenues or walks in low and moist situations. The trunk of this species is more furrowed than any of the others, and frequently has a spiral rope-like figure, as if it consisted of several stems twining together. The wood of the Lombardy and *Abele* sorts has been recommended for shelving and other fittings about cheese-rooms and farm-offices generally, for the reason that mice and mites do not attack them; but how far this is authentic is matter for inquiry.

64. The Black or Italian Poplar is common in Lancashire and Cheshire, generally possessing a fine stem and simple head; it is, when planted in an appropriate situation, often very ornamental; and it attains to a large size in a comparatively short space of time; owing to the circumstance, however, of its roots not striking very deep into the ground, it is often to be found leaning from the perpendicular; being, moreover, liable to be torn up altogether, when assailed by violent winds. It is

late in coming into foliage, its full development being rarely before the latter end of May; the leaves are of a pretty pale green, trowel-shaped, smooth, shining, and possessing fully that characteristic of fluttering with the gentle breeze, they glance and sparkle pleasingly in the sunbeams. The wood is of a pale yellowish colour, and being soft and easily worked, is fabricated into domestic utensils by the turner. The bark, being light, is employed for floats to fishermen's nets; it is also used for tanning; and, in Russia, in the manufacture of Russia leather.

65. The Common White or Grey Poplar and the *Abele* very much resemble each other; but may be distinguished from the circumstance of the leaves of the former being smaller, rounder, less acutely lobed, and having much less down on their under surface than those of the latter; also that its branches grow more upright and compact; it is supposed to be indigenous to Britain, which is countenanced by the fact of its being very commonly found in a wild state, whence, no doubt, arises the circumstance of its being sometimes called the *wild Abele*; but when we consider the light capillary pappus, with which its numerous seeds are furnished, serving like wings to bear them wherever they may be wafted by the wind, we have grounds for withholding our unqualified acquiescence. In a loose and moist soil, such as the bank of a river or lake, it attains a great height, even to 80 or 90 feet; and, from its narrow, spiring form, becomes a conspicuous and stately object, very ornamental to the landscape, whether placed in the hedge-row, or interspersed amongst the trees of the park or pleasure-ground; for undrainable localities, which it is desirable to decorate, it is amongst the first to be chosen; and it fortunately happens that the leaves of the poplar, generally, are eminently distinguished for their beneficial effect in compost soils, enriching the earth on which they grow. The wood is very white, tough when dry, and not liable to split; it is frequently adopted for packing-cases.

66. The *Abele*, or Great White Poplar (also known by the name of Dutch Beech), is of very quick growth; aspiring and light, yet fine, and of very uniform grain: its leaves are larger than those borne by the others generally, and are situated into from three to five lobes, dark in the upper, and clothed with a cottony down on their under side; the bark of the trunk and older branches is grey, that of the younger, purple—the down overspreading the young shoots and footstalks. Its bark is recommended for the cure of intermittent fever. It was originally from Holland,* where it is still a favourite; it on account of its lightness and toughness it is employed for a variety of purposes—wheeled vehicles, pumps, domestic utensils, butchers' trays, bellows, turnery, toys, carvings, Dutch shoes, packing-cases, &c.; it is also very suitable for the purposes of the cabinet-maker; and to render it an excellent imitation of mahogany, it is only necessary to use the ordinary means to which cabinet-makers resort for brightening the colour of woods; for the rapidity, where more colour is required, the stain of aquafortis will bring it up; this renders the *Abele* equal to the best mahogany in colour, variety, and transparency of surface, and in these respects decidedly superior to the commoner sorts of that wood; it requires very little oil and rubbing to bring upon it that admired soft, rich gloss, which it takes years to produce on mahogany furniture. For durability, it is said to be in dry and well-ventilated situations equal to the pine.

(To be continued.)

NEW BUILDINGS BILL.

A MEETING of the MASTER CARPENTERS' Society will take place at the Freemasons' Tavern, on Wednesday next, when a report upon the above Bill will be brought up by the committee appointed by the society to superintend the measure in its progress through Parliament. A copy of this report we shall lay before our subscribers on the first opportunity.

* It is said that 10,000 were exported from Flanders in 1659, and transplanted in various countries.

† The Dutch regard it as a liberal provision for a daughter's marriage dowry, to set a plantation of the *Abele* at her birth; it is of such rapid growth and is so highly prized.

THE NEW ROYAL EXCHANGE.

THE works of this great edifice are drawing to a rapid conclusion, and we are informed that every possible effort is being made for their early completion. On the outside the sculpture on the pediment has been finished, and is considered on the whole to be a work of considerable merit. On the stone base supporting the statue of Commerce, which forms the centre and principal figure of the group, is the very appropriate inscription from the Psalms—"The earth is the Lord's, and the fulness thereof." We understand that the suggestion of such an inscription was first given to the sculptor, Mr. Westmacott, by a very noble personage, who took much interest in the whole composition. On the frieze of the portico a Latin inscription is partly cut, recording the very curious fact of the founding of the Exchange in the reign of one queen, viz. Elizabeth, and its rebuilding in the reign of another, her present most gracious Majesty Queen Victoria. The cleaning down of the work is proceeding with great expedition, and as the architecture becomes more developed by the removal of the scaffolding and the finishing of the carvings of the various parts, the general impression, as to the elegance and characteristic design of the structure, which has been always favourable, seems to increase vastly. In the centre of the south front, over the three openings, the arms of Sir Thomas Gresham, of the Mercers' Company, and of the city of London, are introduced on the key-stones, and, with the architectural accompaniments of festoons and other decorations, give great beauty to this most important entrance. The domes at the north and south entrances are painted in fresco, and form a becoming introduction to the merchants' area within. The ceiling of the covered walk surrounding the open area is nearly finished. It is, as has been already stated, painted in encaustic on the surface of the architecture, and is considered to produce a very beautiful effect. In the centre of each panel are painted the arms of the great nations of the earth. In the four corners are the arms of Edward the Confessor, Edward the Third, Queen Elizabeth, and Charles the Second, each of the two latter being so placed as to be in connection with the statues of the respective sovereigns. The statue of Charles is the old statue in marble which stood in the centre of the old Exchange, and is now being renovated by Mr. Watson, who is also carving a statue of Queen Elizabeth, to be placed in the corresponding niche. The covered walk is paved with enormous flag stones of a light colour, divided into bands by lines composed of a hard black stone, called Castle-hill stone, with squares of polished red granite at the intersections. Great pains appear to have been taken to keep the vaults dry under the open area, and to secure a beautiful, even, and dry surface for the pavement of this essential part of the Royal Exchange. To secure this object, in the first place, we are informed there is a solid layer of concrete upon the arches. Upon that concrete is a coating of the asphalt of Szevel, laid to a proper slope, and terminating in iron gutters, which communicate with pipes, and carry the water into drains below. Over this asphalt will be laid another bed of concrete, to receive the tessellated pavement which will form the finish. The asphalt is already partly laid, and it is said that it will be completed in a week. The tessellated pavement will form a border and bands of varied patterns, and is contracted for by Messrs. Suggs, of Vauxhall. This pavement is a revival of what was considered a lost art, but it is now about to be restored with exquisite beauty, and from the perfect vitrification of the tesserae, it must be extremely durable and non-absorbent. The various offices and shops are in a remarkable state of forwardness, particularly the great rooms on the one pair door, intended for Lloyd's establishment. In these rooms the scaffolding has been removed, and they are to be the finest apartments in the city. One of them is 100 feet in length. Over the great western entrance is a coat of the royal arms, with supporters in alto relievo, carved in a style of amazing boldness and effect, by Mr. Carew. The fixing of it will be completed in the course of the ensuing week. Mr. Carew is finishing a splendid statue of Whittington for one of the principal niches of the edifice.—*Observer*.